FCC 96-155

Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, DC 20554

In the Matter of	)	
	)	
	)	
The Development of Operational,	)	WT Docket No. 96-86
Technical, and Spectrum	)	
Requirements for Meeting	)	
Federal, State and Local Public	)	
Safety Agency Communication	)	
Requirements Through the	)	DOCKET FILE COPY ORIGINAL
Year 2010	)	

REPLY TO COMMENTS TO NOTICE OF PROPOSED RULE MAKING BY:

The Federal Law Enforcement Wireless Users Group
1800 G Street, N.W., Suite 1000
Washington, DC 20223

Submission Date: **December 3, 1996**

INTRODUCTION

The Federal Law Enforcement Wireless Users Group (FLEWUG), comprised of representatives from numerous federal law enforcement and public safety agencies, submitted comments regarding the Notice Of Proposed Rulemaking on October 21, 1996. In these comments the Public Safety Wireless Network (PSWN) Initiative was outlined describing how it evolved from a National Performance Review (NPR) Information Technology Initiative (IT-04) and a subsequent Memorandum of Understanding (MOU) between the Department of the Treasury and the Department of Justice to address the wireless communications interoperability problems of the public safety community at all levels of government.

Our comments further explained how this will result in an implementation plan for a nationwide PSWN which will be utilized by federal, state and local public safety agencies. As stated in our previous original comments, the PSWN Initiative represents the first time that agencies have been commissioned to resolve the long-standing issues of communication interoperability and tactical radio coverage. The Initiative serves to address the issues of interoperability, spectrum needs and efficiencies, and shared infrastructure and systems concepts. Our comments further explained the establishment of the Program Management Office (PMO) and outlined the importance of state and local participation in the planning

process. We outlined the management plan and organizational structure of the PMO in some detail and provided information concerning the established reporting mechanism within the Government Information Technology Services (GITS) Board.

This document offers the federal participants' responses to some specific comments regarding the FCC Notice of Proposed Rulemaking (NPRM), WT Docket #96-86.

GENERAL COMMENTS

It was noted that a vast majority of those providing comments to the NPRM expressed support of the conclusions and recommendations outlined in the Public Safety Wireless Advisory Committee (PSWAC) Final Report. There were a number of comments addressing specific issues and concerns with particular portions of the PSWAC Final Report, but the FLEWUG feels that many of these concerns will be addressed and ultimately resolved during the follow-on activities recommended by the PSWAC in the Final Report, but overall the PSWAC Final Report was overwhelmingly supported. It is imperative that these follow-on actions be initiated as soon as possible while the enthusiasm and momentum established by the PSWAC activities remains at a peak, As stated in our comments, we feel that the PSWN PMO is in an excellent position to bring all the stakeholders together to address the issues that require further study and evaluation.

The FLEWUG members also wish to emphasize their previous comments concerning the spectrum management structure between the National Telecommunications and Information Administration (NTIA) and the FCC.

Before the concept of shared spectrum and joint-use systems can become a more common reality, joint spectrum management and frequency coordination must be seriously addressed and resolved. As the implementation plan for the PSWN is developed, this issue will likely become more critical. The FLEWUG restates their proposal that the spectrum management and frequency coordination for federal, state and local public safety agencies be consolidated to improve effectiveness. We feel that combining federal, state and local public safety spectrum management within the NTIA is one option that will provide effective national planning and coordination.

We believe this consolidation would benefit the federal, state and local public safety agencies in:

- Improved coordination
- Greater potential for shared systems, interoperability and
- Increased access to additional spectrum, accommodating growth in primary voice systems, advanced data, and wide-band systems

Again we wish to emphasize that generally, we do not foresee any significant change in state and local coordination through current frequency coordinators.

Specific Comments

Common Interoperability Band

Extensive discussion took place during the Public Safety Wireless Advisory Committee (PSWAC) meetings concerning possible solutions for interoperability. Discussion often revolved around technical solutions. These solutions included moving all of public safety to a single band, using cross-band gateways and repeaters and others. Technical compatibility discussions ranged from wide band analog to future use of digital narrow band techniques. However, none of these solutions can fully address the requirements of interoperability.

As discussed extensively in the PSWAC Interoperability Subcommittee (ISC) Final report, common discrete frequencies are a must. A partial solution is linking frequencies in different bands. This solution is somewhat usable if and only if discrete frequencies in each and every identifiable band are named and set aside exclusively for this purpose.

Interoperability in this scenario becomes extremely difficult if direct infrastructure independent operation is required. Interoperability is only achieved in this scenario in an operational area limited by the concurrent coverage of the respective infrastructures. Fully implementing such a scenario on a wide area basis would be difficult at best, particularly in a situation where no advance planning is possible. The number of bands and combinations of frequencies utilized make such a solution unacceptable in many cases.

Another major solution consisting of migrating all of public safety users to a single common band was discussed. This option was dismissed as not practical in the public safety environment. There is good technical reasoning behind use of particular bands based on the differing specific characteristics for each of these bands and their suitability depending on the area of operation.

A technical solution must be practical, relatively inexpensive, ubiquitous, and above all, attainable. A solution must be available both on the near term as well as the long term. It must work with existing systems without causing interference with standard dispatch systems or creating an undue hardship to implement.

As discussed above, the move of the entire public safety operating environment to a single band is not practical, and cross banding existing bands is far less than fully effective. The former being impractical and unworkable financially and the latter being inefficient in terms of spectrum use and coverage limitations. However, creating a common *Public Safety Interoperability Band* is both possible and practical. This band should be dedicated exclusively for interoperation applications. In most cases, particularly with those users operating 800 MHz systems, this would not eliminate the need for dual band radios or two radio installations, but having a universal declared band of frequencies gives an absolute

common administrative solution to the common operating requirements of a mutual aid incident.

It is generally accepted that isolating a unique incident from routine daily radio traffic is preferred. Operation on unique "interoperability channels" would easily allow such an action.

It is important for full universal utilization that a national standardized plan be devised and tied very closely to operating restrictions and requirements, However, this should be a basic requirement for any interoperability solution.

The Interoperability Subcommittee did not make specific recommendations regarding bandwidth and technical requirements, allowing some flexibility to the operational aspects of this particular solution that could allow for much higher levels of robust capabilities. This would be a fresh and new service which could be implemented without regard to any backward compatibility requirements. It need not be tied to existing technology and modulation schemes. This leads to a number of possibilities, including narrow channel bandwidth (or equivalent) for maximum spectrum efficiency and digital modulation for improved spectrum efficiency and possibly data transfer. Encryption could possibly be adopted considering the possible digital nature of the service. Over-the-air-rekeying (OTAR) could possibly be implemented.

For the reasons stated above, the FLEWUG does not support the Ericsson recommendation to restrict the "Interoperability Band" to 25 kHz analog operation, as stated in Section II.A.4 on page 14. While we feel Ericsson presents a valid argument in considering analog FM operating in a 25 kHz channel in existing bands, we feel introducing a new operational concept and capabilities limiting technology would not provide effective and efficient use of the available spectrum.

While the FLEWUG can appreciate the concerns expressed by the International Municipal Signal Association (IMSA) and the International Association of Fire Chiefs, Inc. (IAFC) at paragraphs 20 through 23, we feel these issues can be resolved through a careful planning process.

Trunking in Bands below 512 MHz

As stated in our comments in Section 4.1.3., the FLEWUG supports the development of shared systems where practical. To further this concept the FLEWUG supports the comments provided by the Wisconsin State Patrol (page 1) and Ericsson in Section II.D on pages 31 and 32, recommending that the Commission take the necessary steps to permit trunking in the VHF and UHF bands below 512 MHz. This will allow the implementation of more spectrally efficient systems in bands that provide more desirable coverage for wide-area systems.

Commercial Services

As stated in Section 4.5.2.11 in our comments to the NPRM, the FLEWUG supports the conclusions of the PSWAC and the Steering Committee and supports the use of commercial services where practical and cost effective to the public safety community. However, the FLEWUG cautions the Commission in evaluating comments from commercial providers that claim "a total solution" for the public safety communications and interoperability requirements, as provided by Nextel Communications, Inc.,AMSC Subsidiary Corporation, and the Rural Cellular Association. While these comments present valid solutions that may supplement public safety communications, currently these recommended solutions cannot meet the coverage, restoration and priority access criteria required by the public safety agencies. We feel that the "Commercial Vendor Outreach Program", as outlined in the PSWN Management Plan could address many of the concerns and issues among both the public safety community and commercial providers, as new commercial services and capabilities emerge.

Section 273 (Telecommunications Act of 1996)

The FLEWUG supports the comments of the Telecommunications Industry Association (TIA) regarding Section 273 of the Telecommunications Act of 1996, in that Section 273 is not applicable to wireless equipment. We also support the TIA comments and agree that the FCC (or NTIA) should not be involved in mandating any specific standards process. While the FLEWUG supports a "fair and open" process which is based on "consensus" to develop baseline technology standards, we have some concerns with the wide variance of interpretation of these terms. We strongly feel that any development of technological standards must be user driven, based on the specific needs of the public safety community, as well as industry or market driven. While the TIA process does invite user participation, the final product is the result of the members of industry who pay for participation through membership fees. The process must establish a basis for the user community to have equal voice in the final product.

Standards

As stated in our comments in Section 4.7.1 and 4.7.2, the FLEWUG supports the idea that rules and regulations should be technology neutral, but we also emphasize the need for technological consistency to enhance interoperability.

The FLEWUG still maintains that issues regarding Project 25 or any other specific standards development process were inappropriate in the NPRM. However, we emphasize the need to identify a digital baseline technology to enhance interoperability and urge the FCC (and NTIA) to finalize the process for this, as well as other follow-on activities that were identified in the PSWAC Final Report. The point Ericsson makes in their comments on page 18 supporting an analog technology for interoperability, also makes a point to support a common digital technology. The delays that are encountered when using gateways interfacing systems utilizing different voice coding schemes could be minimized if the systems were

utilizing the same voice coding schemes; while still maintaining the improved performance of digital applications.

We wish to emphasize that the FLEWUG supports Project 25 as a potential solution for interoperability for Frequency Division Multiple Access (FDMA) narrowband digital radio systems and realizes that there may be other technologies that satisfy the specific needs of some public safety users. These decisions should be the responsibility of the user agencies and not forced by rules and regulations.

As stated in Section 4.7.2, we do not agree with the positions taken in the documents referenced by the NPRM regarding Project 25.

Summary

The FLEWUG strongly supports the conclusions and recommendations of the PSWAC Final Report, but restates the need to commence the follow-on activities as soon as possible to "maintain the momentum" that was generated by the PSWAC process.

While we are not in favor of "unfunded mandates", we feel a mechanism must be put in place that ensures change in a reasonable period of time. Spectrum efficiency and interoperability will not be achieved, if agencies continue to operate older equipment that has far outlasted its expected life cycle.

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